



CREATIVITY IN RELATION TO STUDENTS' PERCEIVED CLASSROOM GOAL STRUCTURE AND ACADEMIC SELF-EFFICACY

Anil Kumar¹ | Dr. M. S. Chahar²

¹ Research Scholar, Department of Education, M. D. University, Rohtak, Haryana, India.

² Former Principal, C.R. College of Education, Rohtak, Haryana, India.

ABSTRACT

The purpose of this study is to determine the strength of the relationship that existed between creativity of students and their Perceived Classroom Goal Structure and Academic Self-efficacy. The sample of the study includes 430 students of IX and X class students randomly selected from Rohtak, Sonapat, Rewari, and Jhajjar districts of Haryana state. The results suggested that Creativity has no relationship with perceived classroom goal structure and academic achievement. Creativity has a significant negative relationship with students' disruptive behaviour.

KEYWORDS: Creativity, Classroom Goal Structure, Academic Self-efficacy.

Introduction

Educational research in last six decades has witnessed a shift in the source of creativity from divine to psychic functioning of human beings. Of all the unique powers endowed in human beings, creativity is the most unique. Every individual has a 'spark of genius' or less-used powers of creativity, which is waiting to be freed. Even a computer that works at an astonishing speed cannot match creativity because it has a limitation of doing repeated mechanical or computational jobs and cannot produce original ideas. On the other hand human mind is capable of creation. Therefore, it is crucial to be meticulous in defining the term creativity and distinguishing it from other similar intellectual functions as well as to understand its distinctive varieties.

The constituents of creativity and the abilities of creative people can be identified in a usually acceptable pattern of human behaviour. It is generally believed that creative people are inventive and original. It is understood that the time of creation is a 'tender time' when a man yearns to withdraw from his fellow men and moves towards the mountain, desert, or away to his own source of privacy and into silence. Kahlil Gibran has rightly said, "The life itself was created silence and mist. Who knows that crystal itself may be a degenerated form of mist".

The most important characteristics of creativity are originality, altruism, leadership, asense of vision and some joyful quest of happiness. Creativity gets nurtured in a climate of moral and spiritual values such as the pursuit of truth, strife for goodness, faith, fearlessness and courage. A person needs to develop the ability to discover and mobilize one's potential, practice kindness and compassion. He must strive for the pursuit of freedom and liberation, selfless service and the power to achieve synthesis and wholeness through relating seemingly diverse things and ideas to a larger design of unity and harmony; by organizing the fragmented ends of knowledge.

There is a substantial difference between the operation of creativity of children and adolescents. The potential creativity of children finds a natural expression because it is an instinct, but in the case of adolescents, the potential creativity needs to be developed for getting suitable fruits through a purposeful effort in encouraging atmosphere that boost their self-concept and achievement motivation. Researchers have attempted to study the process of functioning of creativity and concluded that if the potential creativity is to be optimally used, the creativity is to be creatively channelized (Getzels and Jackson, 1962; Ghiselin, 1952; Busse, 1981; Torrance, 1966; Gallander and Crowley, 1993; McCormick, Megan and Wold, 1993).

In last few decades researchers focused on how classroom learning environment influence students' learning, but in last some years there is shift toward how classroom settings influence students' outlooks about the nature and purposes of learning. Classroom and other learning environments have been described as certain kinds of instructional demands, situational constraints, or psychosocial characteristics related to various cognitive and affective outcomes in student. However, there has been very little systematically and analytical analysis of actual classroom structures, examining how certain structures within the classroom can make diverse goals salient. The first question to be asked is that what are the structures of the environment of the classroom that lead to a mastery goal orientation and what characteristics of these structures affect how students approach and engage in learning? Converging in the research literature (Brophy, 1987; Epstein, 1988; Marshal, 1988; Marshal & Weinstein, 1984, 1986; MacIver, 1987, 1988; Meece, 1991; Rosenholtz & Rosenholtz, 1981; Rosenholtz &

Simpson, 1984; Stipek & Daniels, 1988), these structures include, but are not limited to, the design of tasks and learning activities, evaluation practices and use of rewards, and distribution of authority or responsibility. They are described in the following sections.

The fundamental element of classroom learning is the design and pattern of tasks and learning activities. Students' perceptions of tasks, activities and their behaviour not only influence how they approach learning; these perceptions also have important consequences for how they will consume the time given to them (Good, 1983). The tasks are surrounded with information that students use to make judgments about their ability, their willingness to apply effortful strategies, and their feelings of satisfaction.

What characteristics of tasks cultivate willingness in students to put their effort forward and become actively engaged in learning? Tasks that involve variety, diversity and uniqueness are more likely to facilitate an interest in learning and a mastery orientation (Marshall & Weinstein, 1984; Nicholls, 1989; Rosenholtz & Simpson, 1984). Moreover, students are more likely to draw near and engage in learning in a manner consistent with a mastery goal when they perceive meaningful reasons for engaging in an activity; that is, when they are focused on developing an understanding of the content of the activity, improving their skills, or gaining new skills and when task presentations highlights personal relevance and meaningfulness of the content (Brophy, 1987; Corno & Rohrkemper, 1985; Lepper & Hodell, 1989; Meece, 1991; Nicholls et al., 1985).

Many research studies have underlined the effects that classroom environment has on creativity and identified the factors of educational environments that stimulate or inhibit individual creativity (Fleith, 2000; Houtz, 1990; Starko, 1995). However, simply scrutinizing and identification of environment variables that may possibly influence creativity is not enough, these studies did not genuinely consider the concern with an integrative approach based on classroom environment. Classroom goal structure is hypothesized as one of the scopes in the research of achievement goal theory. The results of studies on creativity have shown some support for a relationship between personal goal orientation and creativity (Archer, 1997; Hong, Hartzell, & Greene, 2009; Simmons & Ren, 2009). Many researchers have maintained that classroom goal structures should be integrated to understand student creativity and have approved that several classroom environmental dynamics can influence students' creativity (Beghetto, 2005; Hennessey, 2010; Wu, 2002). However, no empirical studies have investigated whether classroom goal structures based on personal goal orientation can be expended to evaluate individual creativity or whether the different classroom goal structures have influence on creativity differently. Moreover, in Indian context no significant study has been carried out on the relationship between creativity and achievement goals and classroom goal structure. Therefore, this study is a humble attempt to extend the empirical base of studies on creativity and achievement goals and classroom goal structure, particularly in Indian context.

Methodology

A descriptive survey method to carry out the study is adopted keeping in view the nature of study. Descriptive survey method deals with what exists at present and it describes and interprets the current prevailing conditions, relationships and practices. It is a relationship study designed to analyze the relationship between variables (Gall, Borg, & Gall, 1996). An advantage to the correlation method is its usefulness in studying problems in education and in other social sciences. Correlation research permits the researcher to investigate relationships among a

large number of variables. Another advantage of the correlation method is that it provides information about the degree to which certain variables are related.

Sample

The sample of the study includes 430 students of IX and X class students. Out of 430 students 287 were male and 143 were female and 253 students belong to rural areas and 177 students belong to urban areas. The investigator picked up 10 schools from Rohtak, Sonapat, Rewari, and Jhajjar districts randomly. From each school the investigator picked up 30 to 40 students randomly making a total sample of 430 students.

Tools Used

The following tools will be used for the collection of the data:

1. Creativity inventory by Baqer Mehdi (1985).
2. Classroom goal structure questionnaire by Kaplan, A., Gheen, M. & Midgley, C. (2002) and Hindi adaptation by Sehrawat (2003).

Procedure of data collection

The questionnaires were administered to the students in their respective schools by the investigator himself. Students were informed that participation in the study is voluntary and their identities would remain confidential. They were asked to read instructions given in the questionnaires before filling of the questionnaires.

The students who did not provide full information were dropped from the final analysis. Initially, we selected 500 students and the final sample includes 430 students and 20 classrooms.

Results

First of all, the reliability of the data was tested by computing Cronbach's Alpha Model and the reliability coefficient is in the range of $\alpha = .72$ to $.811$, which is highly significant. The descriptive statistics of the data are given in table 1:

Table 1: Descriptive Statistics of the Data N=430

Variable	Min	Max	Mean	SD
1. Creativity	4	104	50.76	16.40
Fluency	2	55	27.49	9.21
Flexibility	2	39	21.17	6.07
Originality	0	24	2.11	3.02
2. Students' Disruptive Behaviour	4	27	9.62	3.55
3. Students' Self-efficacy in English	5	28	17.90	5.26
4. Perceived Classroom Goal Structure	17	62	42.79	10.32
Mastery Classroom Goal Structure	6	27	17.79	4.74
Performance Approach Classroom Goal Structure	0	17	10.40	3.41
Performance Avoidance Classroom Goal Structure	4	25	14.60	4.43
Academic Achievement	19	90	57.74	13.35

Table 2: Correlations among different types of classroom goal structure.

	MCG	PAC	PAVG
MCG	1.00	.419**	.584**
PAC		1.00	.479**
PAVG			1.00

**Significant at 0.01 level

Table 2 shows that there is a significant positive relationship among the three types of classroom goal structure: mastery classroom goal structure, performance approach classroom goal structure and performance avoidance classroom goal structure.

The first objective of the present study was to explore the relationship between the creativity and students' perceived classroom goal structure. The correlation coefficients are given below in table 3:

Table 3: Correlations between creativity and perceived classroom goal structure

Predictors → Predicates ↓	PCGS	MCG	PAC	PAVG
Creativity	.052	.050	.007	.062
Fluency	.080	.052	.045	.096**
Flexibility	.020	.036	-.024	.027
Originality	-.004	.038	-.048	-.012

**Significant at .01 level

The Pearson's correlation coefficients presented in table 3 show that Creativity has no relationship with Perceived Classroom Goal Structure, and its different types Mastery Classroom Goal Structure, Performance Approach Classroom Goal Structure, and Performance Avoidance Classroom Goal Structure. However, Fluency, a dimension of creativity, has a significant positive relationship with Performance Avoidance Classroom Goal Structure.

The second objective of the study was to explore the relationship between the creativity and students' disruptive behaviour, students' self-efficacy in English and academic achievement. The correlation coefficients are given below in table 4.7:

Table 4: Correlations between creativity and students' disruptive behaviour, students' self-efficacy in English and academic achievement.

Predictors → Predicates ↓	SDB	SSE	Academic Achievement
Creativity	-.138**	-.016	.042
Fluency	-.123*	-.010	.033
Flexibility	-.140	-.018	.061
Originality	-.093	-.021	.006

**Significant at 0.01 level *Significant at 0.05 level

The table 4 reflects that creativity has a significant negative relationship with students' disruptive behaviour and it has no relationship with students' self-efficacy in English.

The third objective of the study was to explore the relationship between students' disruptive behaviour and perceived classroom goal structure. The correlation coefficients are given below in table 5:

Table 5: Correlations between students' disruptive behaviour and perceived classroom goal structure.

	PCGS	MCG	PAC	PAVG
SDB	-.177**	-.161**	-.083	-.176**

**Significant at 0.01 level

Table 5 reflects that students' disruptive behaviour has a significant negative correlation with perceived classroom goal structure.

The fourth objective of the study was to explore the relationship between students' self-efficacy in English and perceived classroom goal structure. The correlation coefficients are given below in table 6:

Table 6: Correlations between students' self-efficacy in English and perceived classroom goal structure.

	PCGS	MCG	PAC	PAVG
SSE	.536**	.514**	.320**	.451**

**Significant at 0.01 level

Table 6 reflects that students' self-efficacy in English has a significant positive correlation with perceived classroom goal structure.

Discussion

The present study is an attempt to explore relationship among creativity, disruptive behaviour, perceived classroom goal structure, self-efficacy in English and academic achievement. The results suggested that Creativity has no relationship with perceived classroom goal structure. The results are contrary to the study of Peng et al. (2013) who reported a significant relation between creativity and mastery classroom goal structure. The possible reason for this difference in results may be that in the classrooms from where the data is collected the teachers impart no clear instructions. The results are contrary to Rajagoplan (1988) who found positive correlation between classroom environment and creativity. However, Fluency, a dimension of creativity has a significant positive relationship with performance avoidance classroom goal structure. Performance- avoidance goals classroom goal structure refers to the degree to which students feel that teachers emphasize the importance of avoiding doing worse than others and avoiding appearing incompetent in the class. This result can be understood in the light that India is a collective culture where self-concept is made in comparison with other, so no wonder the tendency to appear better than other student is evident in the results. Mishra (1982) found significant relationship between originality and perceived classroom environment.

Creativity has a significant negative relationship with students' disruptive behaviour. Creativity has no relationship with students' self-efficacy in English. For these result the investigator could not find empirical evidences from the existing studies.

Creativity has no relationship with academic achievement. Contrary to this result Orioux (1989) found a significant relationship between creative abilities and academic achievement. Vijayalakshmi (1980), Singh (1982) and Gupta (1989) reported positive relationship between creativity and academic achievement. Joshi (1981) found low relationship between creativity and academic achievement.

Another objective of the study was to explore the relationship between Students' disruptive behaviour and perceived classroom goal structure. Students' disruptive behaviour has a significant negative correlation with Students' goal orientation and perceived classroom goal structure.

The next objective of to seek the relationship between students' self-efficacy in English and perceived classroom goal structure. The results highlighted that students' self-efficacy in English has a significant positive correlation with perceived classroom goal structure.

In nutshell, we may conclude that Creativity has no relationship with perceived classroom goal structure and academic achievement. Creativity has a significant negative relationship with students' disruptive behaviour.

The present study provides reliable information about the students' creativity and classroom goal structure. Students' perception of classroom goal structures provides basis to teachers for understanding the students' perceptions and their goal structures, which will help the teachers in forming new classroom goal structure in achieving their desired goals and enhance students' creativity, learning and mastery of skills.

The present study will help the teachers in adopting suitable pedagogical methods and techniques to fulfill the desired goals and catering to the students' creative and academic needs. It is strongly recommended that special efforts should be put to nurture the creative talent of the students. The activities that may foster creativity include Model-Eliciting Activities (MEAs) is helpful in developing creative thinking (Chamberlin and Moon, 2005); and creativity can be applied to any domain of knowledge and to all school subjects.

Techniques like brain storming, problem-solving, quiz and project activity are helpful in developing creativity (Shan, 1989). Students' involvement in creative activities results in improved student motivation and may safeguard children from stress.

While the investigator deems the findings of the present study, obviously caution in adopting them is warranted due to several limitations. First, the relative small size of the sample prevents us from making stronger claims about the generalizability of these findings. Second, the correlational nature of the data, which were collected at one time point, limits the interpretation with regard to the processes involved. Nevertheless, extrapolations from the data, when supported by theory, can provide suggestions for directions in future investigations. This study primarily explored relationship between creativity and disruptive behaviour and perceived classroom goal structure. A study to explore the impact of demographic variables on students' perceived classroom goal structure and disruptive behaviour can be conducted. A study can be conducted to explore the impact of different achievement goals and different classroom goal structures emphasized by teachers in the classroom on divergent thinking and creativity of students. Some studies have examined the effects of personal and environmental dimensions of students' achievement goals can have on their learning behavior (Lau & Lee, 2008; Peng & Cheng, 2005; Wolters, 2004). But no considerable study was found in Indian context, therefore, such a study will extend the empirical base and will help in understanding the influence of classroom goal structure on creativity in Indian classrooms. Future studies should explore how personal goal orientation and classroom goal structures can influence creativity.

REFERENCES

- Archer, J. (1997). *Motivation and Creativity: The Influence of achievement goals on creativity in writing poetry*. Newcastle: University of Newcastle.
- Beghetto, R.A. (2005). Does assessment kill student creativity. *The Educational Forum*, 69, 254-263.
- Brophy, J. E. (1987). Synthesis of research on strategies for motivating students to learn. *Educational Leadership*, 44, 40-48.
- Chamberlin, S.A. & Moon, S.M. (2005). Model-eliciting activities as tool to develop and identify creativity gifted mathematicians. *Journal of Secondary Gifted Education*, 17(1), 37-47.
- Corno, L. & Rohrkemper, M. M. (1985). The intrinsic motivation to learn in the classroom. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (Vol. 2, PP. 53-90). San Diego, CA: Academic Press.
- Epstein, J. L. (1988). Effective schools or effective students: Dealing with diversity. In R. Haskins & D. MacRae (Eds.), *Policies for America's public schools: Teacher equity indicators* (pp. 89-126). Norwood, NJ: Ablex.
- Fleith, D. S. (2000). Teacher and student perceptions of creativity in the classroom environment. *Roper Review*, 22, 148-153.
- Gall, M. D., Borg, W. R. & Gall, J. P. (1996). *Educational research* (6th ed.), New York: Longman.
- Gallander, W.M., & Crowley, J.M. (1993). *The Adolescent Self-Concept: A Functional Determinant of Consultant Preference*. *Journal of Youth and Adolescence*, 22, 4, 369-383.
- Getzels, J.W. & Jackson, P.W. (1962). *Creativity and Intelligence: Exploration with Gifted Students*; New York: John William.
- Ghiselin, B. (1952). *The Creative Process*; Berkeley: University of California Press.
- Good, T. (1983). Classroom research: A decade of progress. *Educational Psychologist*, 18, 127-144.
- Gupta, A. (1989). The effect of family attachment on personal values, creativity and educational achievement of the girls of small and big families. *Doctoral Dissertation in Education*, Agra University, Agra.
- Joshi, S.P. (1981). A Study of Verbal Creativity in Marathi Language in Relation to Achievement in Marathi and Environmental Factors of the Students as well as Teaching in High Schools. *Doctoral Dissertation in Education* Cited in M.B. Buch III Survey.
- Hennessey, B.A. (2010). The creativity-motivation connection. In R.J. Sternberg (Ed.), *The Cambridge handbook of creativity* (pp. 342-365). Cambridge: Cambridge University Press.
- Hong, E., Hartzell, S.A. & Greene, M.T. (2009). Fostering creativity in the classroom: Effects of teachers' epistemological beliefs, motivation, and goal orientation. *Journal of Creative Behavior*, 43, 192-208.
- Houtz, J.C. (1990). Environments that support creative thinking. In J.H. Hedley & A. Barratta (Eds.), *Cognition, curriculum and literacy* (pp. 61-76). Norwood, NJ: Ablex.
- Lau, S. & Lee, Y. (2008). Inter play between personal goals and classroom goal structures in predicting student outcomes: A multi-level analysis of person-context interactions. *Journal of Educational Psychology*, 100, 15-29.
- Lepper, M. R. & Hodell, M. (1989). Intrinsic motivation in the classroom. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (Vol. 3, pp. 73-105). San Diego, CA: Academic Press.
- MacIver, D. (1987). Classroom factors and student characteristics predicting students' use of achievement standards during self-assessment. *Child Development*, 58, 1258-1271.
- MacIver, D. (1988). Classroom environments and the stratification of pupils' ability perceptions. *Journal of Educational Psychology*, 80, 495-505.
- Marshall, H. H. (1988). In pursuit of learning-oriented classrooms. *Teaching and Teacher Education*, 4, 85-98.
- Marshall, H. H., & Weinstein, R. S. (1986). Classroom context of student-perceived differential teacher treatment. *Journal of Educational Psychology*, 78, 441-453.
- Marshall, H. H., & Weinstein, R. S. (1984). Classroom factors affecting students' self-evaluations: An interactional model. *Review of Educational Research*, 54, 301-325.
- McCormick, Megan E. and Wold, J. S., (1993). *Intervention Programs for Gifted Girls*. *Roeper Review*, 16(2), 85-88.
- Meece, J. L. (1991). The classroom context and children's motivational goals. In M. Maehr & P. Pintrich (Eds.), *Advances in achievement motivation research* (Vol. 7, pp. 261-286). Greenwich, CT: JAI Press.
- Mehdi, B. (1973). *Verbal and Nonverbal Tests of Creativity*. Agra: National Psychological Corporation.
- Mishra, K. S. (1982). Effect of children's perception of home and school environment on their scientific creativity. *Doctoral Dissertation in Education*, University of Rajasthan, Jaipur.
- Nicholls, J. G. (1989). *The Competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nicholls, J. G., Patashnick, M., & Nolen, S. B. (1985). Adolescents' theories of education. *Journal of Educational Psychology*, 77, 683-692.
- Orioux, J. A. (1989). A conceptual difference between internal-external locus of control and casual attribution. *Psychological Reports*, 6, 203-209.
- Peng, S. L., Cherng, B. L. and Chen, H. C. (2013). The effect of classroom goal structures on the creativity of junior high school student. *Educational Psychology*, 33 (5), 540-560.
- Peng, S. L., & Cherng, B.L. (2005). The relationship among a 4-dimensional classroom goal structure, personal goal orientation and academic help-seeking behavior. *Journal of Taiwan Normal University Education*, 50, 69-95.
- Rajgopalan, S. (1988). A study of creativity of secondary school students in relation to classroom climate, achievement motivation and mental ability. *Doctoral Dissertation in Education*, S. P. University, Vallabh Vidyanagar, Anand.
- Rosenholtz, S. J. & Simpson, C. (1984). Classroom organization and student stratification. *The Elementary School Journal*, 85, 21-37.
- Rosenholtz, S. R., & Rosenholtz, S. J. (1981). Classroom organization and the perception of ability. *Sociology of Education*, 54, 132-140.
- Sehrawat, A. (2003). Classroom Goal structure, Disruptive Behaviour and Academic Achievement of Adolescents in Relation to Socio-demographic Variables. Unpublished Med Dissertation submitted to Maharshi Dayanand University, Rohtak.
- Sehrawat, A. (2005). Perceived General Well-Being and School-Related Well-Being of Adolescents in Relation to Personal Ego Goals, Personal Task Goals and Self-Reported Disruptive Behaviour. Unpublished MPhil Dissertation submitted to Alagappa University, Karaikudi.
- Shan, H. R. (1989). Effectiveness of certain curricular activities in the development of creative thinking of high school students of backward hilly regions of Jammu (Unpublished doctoral dissertation). Himachal Pradesh University, Himachal Pradesh.
- Simmons, A.L. & Ren, R. (2009). The influence of goal orientation and risk on creativity. *Creativity Research Journal*, 21, 400-408.
- Singh, K. (1982). A study of creative thinking of high school students of Himachal

Pradesh in relation to some cognitive and non-cognitive variables. Doctoral Dissertation in Education, Himachal Pradesh University, Shimla.

42. Starko, A.J. (1995). Creativity in the classroom. White Plains, New York: Longman.
43. Stipek, D. J. & Daniels, D. H. (1988). Declining perceptions of competence: A consequence of changes in the child or in the educational environment? *Journal of Educational Psychology*, 80, 352-356.
44. Torrance, E.P. (1966). *Education and The Creative Potential*. Minneapolis: University of Minnesota Press.
45. Vijayalakshmi, J. (1980). Academic achievement and socio-economic status as predictors of creative talent. Doctoral Dissertation in Psychology, Kerala University, Thiruvananthapuram.
46. Wolters, C.A. (2004). Advancing achievement goal theory: Using goal structure and goal orientations to predict student's motivation, cognition, and achievement. *Journal of Educational Psychology*, 96, 236-250.
47. Wu, J.J. (2002). Enticing the crouching tiger and awakening the hidden dragon: Recognizing and nurturing creativity in Chinese students. *Research in Applied Psychology*, 15, 17-42.